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UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Adjustment Administration
Washington, D.C.

March 7, 1935.

CHEMICAL COMPOSITION AND FEEDING VALUE OF ARGENTINE CORN

Some corn from Argentina is entering the United States, and as a result inquiries regarding the composition and the feeding value of this grain have been received.

Shipments of Argentine corn have during recent weeks been received at Atlantic, Gulf, and Pacific ports. In the main this corn has been used in territory tributary to the ports of entry. Doubtless a large amount of it has been ground and sold as an ingredient of mixed feeds. Should a condition develop during the late spring months whereby corn of the new crop from the Argentine should be shipped inland to the drought area of the United States, feeders who would use it would undoubtedly like to have such information as is available regarding its characteristics.

Practically all corn raised in the Argentine is of a hard flinty character. It compares very closely with the original flint corn grown in the United States. The kernel is comparatively small and hard and usually contains a relatively low percentage of moisture. The chemical composition appears in Table I. This comprises an average of several hundred samples. The information was assembled by Dr. David A. Coleman of the Federal Grain Inspection Office, Bureau of Agricultural Economics. Composition was obtained on a dry-matter basis and reconverted to a 14 percent moisture content.

TABLE I - Comparative composition of Argentine and United States yellow corn. (Percent)

Product	:Water:	Ash	:Crude protein:	Fiber	:Nitrogen-free extract	Fat
Argentine Corn	: 14	:1.44	: 9.52	: 1.84	: 69.02	:4.18
U. S. Yellow Corn	: 14	:1.30	: 9.20	: 1.99	: 69.40	:3.97

The table indicates a striking similarity in composition between Argentine corn and that produced within the United States. The Argentine corn contains a somewhat higher ash content, slightly more protein, a little less fiber, practically the same amount of nitrogen-free extract, which in the main consists of starch and a little more fat.

The Argentine corn, if ground before feeding, would seem to have a feeding value practically equal to that of United States dent corn. The starch in this corn is of a vitreous character while most of that in our native corn is of a floury or soft nature. For most farm animals, it is not necessary or profitable to grind dent corn.

In 1912 to 1914 when a considerable quantity of Argentine corn was coming into the United States, there was some difficulty in transporting the grain so that it would be in good condition upon arrival. Moisture content naturally was a determining factor. Slow boats and delayed movements accentuated the trouble. At that time shipments containing over 15 percent moisture were prone to show some ship damage.

During the past month there has been considerable movement of corn from the Argentine into the United States. Most of this has contained less than 14 percent moisture. It was all old-crop corn. The new crop in the Argentine will be harvested in the near future, and shipments of this are expected in the United States by the latter part of April. If the grain is thoroughly dried before shipments it should arrive in good condition.

The amount of corn imported into the United States since the beginning of the drought of 1934 has been comparatively small. During the six months, July 1, 1934, to January 1, 1935, the total amounted to slightly less than 3,000,000 bushels. Of this over 2,500,000 bushels came from Mexico. Argentina furnished only 142,672 bushels. Since January 1, 1935, arrivals of corn from the Argentine have increased. The total arrivals by boat during the period January 1, 1935, to February 23, 1935, amounted to slightly over 1,250,000 bushels, the greater part of this being from Argentina.

The corn imported from Mexico is largely of a flint variety comparable, in most visible characteristics, to the corn of the Argentine. The limited quantities of corn received from the other countries have been of both the flint and dent varieties.

